

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claim 24 has been canceled. Claims 1-23 and 25-58 are pending, of which claims 1, 3-9, 12-15, 18, 25-26, 31, 35-41, 46, 48, and 52 have been amended.

Applicant's amendments and remarks after Final are appropriate under 37 C.F.R. §1.116 because they address the Office's remarks in the Final Action, and thus could not have been presented earlier. In addition, the amendments and remarks should be entered to place the case in better form for appeal.

35 U.S.C. §102 Claim Rejections

Claims 1-58 are rejected under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,225,546 to Kraft et al. (hereinafter, "Kraft") (*Office Action* p.2). Applicant respectfully traverses the rejection.

Kraft relates generally to a technique for summarizing audio data (*Kraft*, col.1, lines 23-24). Kraft describes that an audio composition is converted to MIDI format which is devoid of the structural information that contributes to the overall sound of an audio wave (*Kraft* col.5, lines 11-22). A MIDI analyzer arranges the song data into a standard format and a component parses the file into MIDI primitive data (*Kraft*, col.5, lines 42-45). A builder component analyses the MIDI data to detect repetitive patterns, and parses or breaks down the data into component parts to create a hierarchal structure representative of the song (e.g., into song, parts, tracks, measures, and notes) (*Kraft*, col.5, line 56 to col.6, line 9; Fig. 5). This summarization hierarchy is analyzed with algorithms to detect

1 the main melody part (*Kraft* col.6, lines 61-64; col.13, lines 43-44). The main
2 melody part is used as a representative thumbnail of the composition which is the
3 end product of *Kraft* (*Kraft*, col. 13, lines 45-46). Thus, *Kraft* describes breaking
4 down an audio composition, determining the melody part, and using the melody
5 part for a representative summary of the composition.

6 Contrary to breaking down an audio composition to determine a single
7 representative part as described in *Kraft*, Applicant describes audio wave data
8 playback in an audio generation system to create audio representations of, for
9 example, interactive applications such as video games and Web sites. Multiple
10 audio sources provide audio content (e.g., wave or MIDI track components) to a
11 performance manager that receives the audio content and utilizes segment
12 components to produce audio instructions for input to an audio rendition manager
13 (*Description* p.13, lines 1-9). The audio rendition manager provides various audio
14 data processing components that generate an audio rendition, i.e. process audio
15 data into audible sound (*Description* p.13, lines 1-9). The audio rendition
16 manager also provides real-time, interactive control over audio data processing.
17 Thus, whereas *Kraft* only describes breaking down a single audio file to determine
18 a thumbnail representative of the file, Applicant describes that multiple audio
19 sources can be utilized to generate an audio rendition.

20
21 Claim 1 recites an audio generation system comprising "an audio
22 processing component configured to generate an audio rendition corresponding to
23 audio wave data derived from multiple audio wave data sources, the audio
24 rendition including an audible playback according to playback instructions",
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1 "audio wave track components configured to generate the playback instructions
2 that are routed to the audio processing component to initiate the audio rendition
3 being generated", and "a segment component configured to play the audio wave
4 track components to generate the playback instructions for the audio rendition".

5 Kraft does not show or disclose audio wave track components configured to
6 generate playback instructions that are routed to an audio processing component to
7 initiate generation of an audio rendition, and which are to be played by a segment
8 component, as recited in claim 1. Kraft only mentions tracks as components of an
9 audio file or audio composition (*Kraft* col.6, lines 15-24). These tracks are not
10 played back, but rather algorithms are applied to a hierarchal structure that
11 includes the tracks to identify the melody portion of the audio composition for use
12 as a summary (*Kraft* col.6, lines 61-64). There is nothing in Kraft to indicate that
13 the track components generate playback instructions, or are played by a segment
14 component, as recited in claim 1.

15 The Office cites Kraft for an audio file (300) as the audio wave track
16 components recited in claim 1 (*Office Action* p.2). Applicant disagrees because
17 the track components described and claimed by the Applicant are more than just
18 an audio file without structure, which Kraft shows in Fig. 3 being converted to a
19 MIDI file. The MIDI file in Kraft is then analyzed to determine a representative
20 thumbnail which is only a portion of the audio composition. There is no
21 indication in Kraft that the audio file is to be played back by a segment
22 component. Nor does Kraft indicate that the audio file generates playback
23 instructions which are routed to an audio processing component to initiate an
24 audio rendition being generated, as recited in claim 1.

1 Kraft also does not show or disclose a segment component configured to
2 play the audio wave track components to generate the playback instructions for the
3 audio rendition, as recited in claim 1. Again, an audio file in Kraft is merely
4 broken down into component parts to determine a representative summary. As
5 such, the audio file is analyzed, but not played back. Kraft does not indicate any
6 such segment component to play track components and generate playback
7 instructions. The Office cites Kraft for a component builder (206) that detects
8 repetitive patterns and builds a summarization hierarchy (*Office Action* p.2). The
9 component builder described in Kraft, however, is not a segment component
10 configured to *play* audio wave track components and generate playback
11 instructions which then initiate an audio rendition, as recited in claim 1.

12 Kraft also does not show or disclose an audio processing component
13 configured to generate an audio rendition, as recited in claim 1. As described
14 above, Kraft only creates a thumbnail as a representative portion of a musical
15 composition. An audio rendition, as described by the Applicant, involves audible
16 playback of various audio wave track components derived from multiple audio
17 wave data sources.

18 Accordingly, claim 1 is allowable over Kraft for any one of these many
19 reasons and Applicant respectfully requests that the §102 rejection be withdrawn.
20

21 Claims 2-17 are allowable by virtue of their dependency upon claim 1.
22 Additionally, some or all of claims 2-17 are allowable over Kraft for independent
23 reasons. For example:
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1 Claim 2 recites "MIDI track components configured to generate event
2 instructions that are routed to the audio processing component to initiate a second
3 audio rendition" and "wherein the segment component is further configured to
4 play one or more of the MIDI track components to generate the event
5 instructions." As described above in the response to the rejection of claim 1, Kraft
6 fails to disclose an audio rendition and therefore does not disclose a second audio
7 rendition. Further, Kraft does not describe a segment component to play MIDI
8 track components, as recited in claim 2. Kraft only describes that MIDI files are
9 analyzed and broken into component parts to determine a single representative
10 component. Accordingly, claim 2 is allowable over Kraft and the §102 rejection
11 should be withdrawn.

12 Claim 3 recites "a segment state that includes programming references to
13 each of the audio wave track components, the segment state configured to initiate
14 that the audio wave track components generate the playback instructions". The
15 Office cites Kraft at col.4, lines 31-51 for commercially available operating
16 system software (*Office Action*, p.3). Applicant disagrees that a mere cite to an
17 operating system is a basis to reject the features recited in claim 3, such as a
18 segment state, programming references to each of the audio wave tracks, and that
19 the segment state initiates the track components to generate playback instructions.
20 The cited section of Kraft fails to disclose any of the features recited in claim 3.
21 Accordingly, the §102 rejection should be withdrawn and claim 3 should be
22 allowed.

23 Claim 5 recites "a performance manager that includes one or more segment
24 states, each segment state including programming references to each of the audio
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1 wave track components" and "each segment state configured to initiate that the
2 audio wave track components generate the playback instructions." The Office
3 simply references to Fig.2 of Kraft which merely shows a conceptual block
4 diagram of the system to generate an audio summary, as described in Kraft (*Office*
5 *Action*, p.3). The Office makes no indication as to what in Fig.2 forms the basis
6 for a rejection of claim 5. Further, there is nothing about Fig.2 that discloses a
7 performance manager, programming references, or a segment state as recited in
8 claim 5. Accordingly, the §102 rejection should be withdrawn and claim 5 should
9 be allowed.

10 Claim 8 recites that "the audio processing component is a synthesizer
11 component configured to receive the audio wave data from the multiple audio
12 wave data sources, and is further configured to generate the audio rendition in
13 response to the playback instructions". The Office cites Kraft for indicating that a
14 MIDI file is essentially a collection of tracks that typically represent different
15 instruments (*Office Action* p.4; *Kraft* col.5, line 62 to col.6, line 4). The cited
16 section of Kraft does not provide any basis to reject the recited features of claim 8.
17 For example, Kraft makes no mention of a synthesizer component and does not
18 disclose that an audio processing component is a synthesizer component.
19 Accordingly, the §102 rejection should be withdrawn and claim 8 should be
20 allowed.

21 Claim 10 recites that "the audio wave track components are further
22 configured to maintain the audio wave data as an embedded audio wave data
23 source." Claim 11 recites that "the segment component is further configured to
24 maintain the audio wave data as an embedded audio wave data source". The
25

1 Office simply states one word, "(MIDI)", to support the rejection of claims 10 and
2 11, (*Office Action*, pp.4-5). Applicant disagrees that the single word "MIDI"
3 constitutes a basis to reject claims 10 and 11. Further, there is nothing about
4 "MIDI" in Kraft that discloses an embedded audio wave data source, as recited in
5 claims 10 and 11. Accordingly, the §102 rejection should be withdrawn and
6 claims 10 and 11 should be allowed.

7 Claim 12 recites that "the audio wave track components are further
8 configured to randomly select a variation of the audio wave data such that the
9 segment component plays the audio wave track components that correspond to the
10 variation selection." Kraft does not disclose the random selection of variations of
11 wave data such that the variation is played by the segment component, as recited
12 in claim 12. The Office cites Kraft for variations that are pre-existing in the
13 musical composition that is being analyzed (*Office Action* p.5; *Kraft*, col.7 line 53
14 to col.9 line 15). These variations described in Kraft are an obstacle to detecting
15 the melody, and are merely part of the song being analyzed. Kraft neither selects
16 the variations randomly nor plays them. Accordingly, Kraft does not disclose the
17 recited features of claim 12 and the §102 rejection should be withdrawn.

18 Claim 14 recites that "the segment component is a programming object
19 having an interface that is callable by a software component of the audio
20 generation system to initiate that the segment component play the audio wave
21 track components."

22 Claim 15 recites that "the segment component is a programming object
23 having an interface that is callable by a performance manager to initiate that the
24 segment component play the audio wave track components, and wherein the audio
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1 wave track components are programming objects each having an interface that is
2 callable by the segment component to initiate that the audio wave track
3 components generate the playback instructions."

4 The Office does not address the features recited in claims 14 and 15, or
5 even provide a basis for the rejection of these claims. Further, Kraft does not
6 show or disclose the features recited in claims 14 and 15. Accordingly, the §102
7 rejection of claims 14 and 15 should be withdrawn, and the claims should be
8 allowed.

9
10 Claim 18 recites an audio generation system comprising:

11 a MIDI track component configured to generate event instructions for MIDI
12 audio data received from a MIDI audio data source;

13 an audio wave track component configured to generate playback
14 instructions for audio wave data received from multiple audio wave data sources;

15 a segment component configured to play the MIDI track component to
16 generate the event instructions, and further configured to play the audio wave
17 track component to generate the playback instructions; and

18 an audio processing component configured to receive the event instructions
19 and the playback instructions, and further configured to generate an audio
20 rendition that is an audible playback of the MIDI audio data and the audio wave
21 data.

22 As described above in the response to the rejection of claim 1, Kraft does
23 not show or disclose the recited features of claim 18, such as audio wave track
24 components, generating playback instructions, a segment component, and
25 generating an audio rendition. Kraft simply analyzes a MIDI file that is broken
down for summarization. Further, Kraft does not describe that an audio rendition

1 is generated as an audible playback of both the MIDI audio data and the audio
2 wave data, as recited in claim 18.

3 Accordingly, claim 18 is allowable over Kraft and Applicant respectfully
4 requests that the §102 rejection be withdrawn.

5
6 Claims 19-35 are allowable by virtue of their dependency upon claim 18.
7 Additionally, some or all of claims 19-35 are allowable over Kraft for independent
8 reasons including those described above in the response to the rejection of
9 claims 2-17. Accordingly, the §102 rejection of claims 19-35 should be
10 withdrawn.

11
12 Claim 36 recites a method comprising "initiating a segment component to
13 play audio wave track components that generate playback instructions for audible
14 playback of an audio rendition", "generating the playback instructions for audio
15 wave data with the audio wave track components, the audio wave data derived
16 from multiple audio wave data sources", and "communicating the playback
17 instructions to an audio processing component that generates the audio rendition
18 corresponding to the audio wave data."

19 As described above in the response to the rejection of claim 1, Kraft does
20 not show or disclose the recited features of claim 36, such as a segment
21 component, generating playback instructions, or an audio processing component
22 that generates an audio rendition.

23 Accordingly, claim 36 is allowable over Kraft and the §102 rejection
24 should be withdrawn.
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2 Claims 37-45 are allowable by virtue of their dependency upon claim 36
3 (either directly or indirectly). Additionally, some or all of claims 37-45 are
4 allowable over Kraft for independent reasons including those described above in
5 the response to the rejection of claims 2-17. Accordingly, the §102 rejection of
6 claims 37-45 should be withdrawn.

7
8 Claim 46 recites a method comprising “generating playback instructions for
9 audio wave data with an audio wave track component”, “generating event
10 instructions for MIDI audio data with a MIDI track component”, and
11 “communicating the playback instructions and the event instructions to an audio
12 processing component that generates an audio rendition which is an audible
13 playback of the audio wave data and the MIDI audio data.”

14 As described above in the response to the rejection of claims 1 and 36,
15 Kraft does not show or disclose the features recited in claim 46. Accordingly,
16 claim 46 is allowable over Kraft and the §102 rejection should be withdrawn.

17
18 Claims 47-54 are allowable by virtue of their dependency upon claim 46
19 (either directly or indirectly). Additionally, some or all of claims 47-54 are
20 allowable over Kraft for independent reasons including those described above in
21 the response to the rejection of claims 2-17. Accordingly, the §102 rejection of
22 claims 47-54 should be withdrawn.

1 Independent claim 55 along with dependent claims 56-58 are allowable
2 over Kraft for many of the reasons described above in response to the rejections of
3 claims 1-54. Accordingly the §102 rejection of claims 55-58 should also be
4 withdrawn.

5
6 **Conclusion**

7 Pending claims 1-23 and 25-58 are in condition for allowance. Applicant
8 respectfully requests reconsideration and issuance of the subject application. If
9 any issues remain that preclude issuance of this application, the Examiner is urged
10 to contact the undersigned attorney before issuing a subsequent Action.

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12 Respectfully Submitted,

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